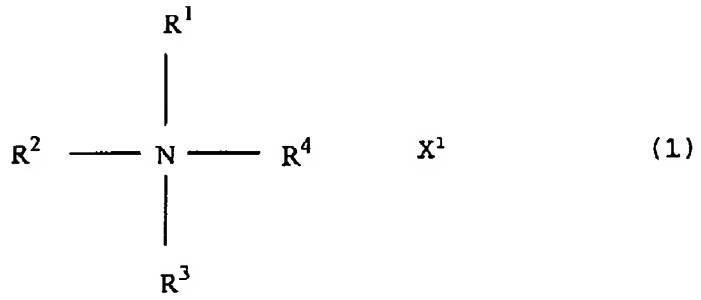
IN THE CLAIMS:

1. (currently amended) An electrolytic solution for use in nonaqueous electrolytic lithium secondary cells which contains a room temperature molten salt~~, i.e.,~~ which is an aliphatic quaternary ammonium salt of the formula (1), an organic solvent and a lithium salt of the formula (2), the electrolytic solution being characterized in that the organic solvent contains vinylene carbonate in an amount of 1 to 5 wt. % based on the electrolytic solution



(1)

LiX^2 (2)

wherein R^1 to R^3 are each a chain hydrocarbon having 1 to 4 carbon atoms, R^4 is methoxymethyl, ethoxymethyl, propoxymethyl or isopropoxymethyl, and X^1 and X^2 are each a fluorine-containing anion.

2. (original) An electrolytic solution according to claim 1 wherein at least one of the fluorine-containing anions X^1 and X^2 contains tetrafluoroborate.

3. (previously presented) An electrolytic solution according to claim 1 wherein the room temperature molten salt is contained in an amount of 1 to 15 wt. % based on the electrolytic solution.

4. (previously presented) An electrolytic solution according to claim 1 wherein the room temperature molten salt is contained in an amount of 4 to 13 wt. % based on the electrolytic solution.

5. (previously presented) An electrolytic solution according to claim 1 wherein the room temperature molten salt is contained in an amount of 4 to 9 wt. % based on the electrolytic solution.

6. (original) A nonaqueous electrolytic lithium secondary cell comprising a positive electrode, a negative electrode, a separator and a nonaqueous electrolytic solution, the secondary cell being characterized in that the electrolytic solution according to claim 1 is used as the nonaqueous electrolytic solution.

7. (previously presented) A secondary cell according to claim 6 wherein at least one of the fluorine-containing anions X^1 and X^2 of the formulas (1) and (2) contains tetrafluoroborate.

8. (previously presented) A secondary cell according to claim 6 wherein the room temperature molten salt of the electrolytic solution is contained in an amount of 1 to 15 wt. % based on the electrolytic solution.

9. (previously presented) A secondary cell according to claim 6 which is characterized in that negative electrode is a carbon material which absorbs and desorbs lithium ions.